

AMENDMENTS TO THE CLAIMS

1. (Canceled)
2. (Canceled)
3. (Canceled)
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19. (Canceled).
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21. (Canceled)
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23. (Canceled)
24. (Canceled)
25. (Canceled)
26. (Canceled).

27. (Previously presented) An apparatus comprising:
an area ruled vertical fin configured to minimize the rate of change of cross-sectional
areas of the apparatus, wherein the vertical fin includes a "waisted" area.

28. (Original) The apparatus according to Claim 27 further comprising:
a body coupled to the root of the vertical fin, wherein the vertical fin includes the
"waisted" area at the juncture of the body.

29. (Original) The apparatus according to Claim 27 further comprising:
a horizontal stabilizer coupled to the vertical fin, wherein the vertical fin includes the
"waisted" area at the juncture of the horizontal stabilizer.

30. (Original) The apparatus according to Claim 27, wherein the vertical fin includes
a plurality of the "waisted" areas.

31. (Previously presented) The apparatus according to Claim 27, wherein the
apparatus is an aircraft.

32. (Previously presented) The apparatus according to Claim 27, further
comprising:
an area ruled strake coupled to the root of the vertical fin, wherein the root of the
vertical fin and the tip of the strake are configured with a "waisted" area.

33. (Previously presented) The apparatus according to Claim 32 further
comprising:
a fuselage coupled to the root of the strake.

34. (Previously presented) The apparatus according to Claim 27 further
comprising:
an inverted V-tail coupled to the vertical fin.

35. (Previously presented) The apparatus according to Claim 27, wherein the tip of the vertical fin is configured with a "waisted" area.

36. (Withdrawn) The apparatus according to Claim 27, wherein the apparatus is a watercraft.

37. (Withdrawn) The apparatus according to Claim 27, wherein the apparatus is an automobile.

38. (Previously presented) The apparatus according to Claim 27, wherein the fin is configured based on a weighted average of vertical fin configurations for at least two Mach numbers.

39. (Previously presented) An apparatus comprising:
a fin that includes a "waisted" area, wherein the cross-sectional area of the waisted area is configured to help minimize the rate of change of cross-sectional area of the apparatus.

40. (Previously presented) The apparatus according to Claim 39 further comprising:

a body coupled to the root of the fin, wherein the fin includes the "waisted" area at the juncture of the body.

41. (Previously presented) The apparatus according to Claim 39 further comprising:

a stabilizer coupled to the fin, wherein the fin includes the "waisted" area at the juncture of the stabilizer.

42. (Previously presented) The apparatus according to Claim 39, wherein the fin includes a plurality of the "waisted" areas.

43. (Previously presented) The apparatus according to Claim 39, wherein the apparatus is an aircraft.

44. (Previously presented) The apparatus according to Claim 39, further comprising:

an area ruled strake coupled to the root of the fin, wherein the root of the fin and the tip of the strake are configured with a "waisted" area.

45. (Previously presented) The apparatus according to Claim 44 further comprising:

a fuselage coupled to the root of the strake.

46. (Previously presented) The apparatus according to Claim 39 further comprising:

an inverted V-tail coupled to the fin.